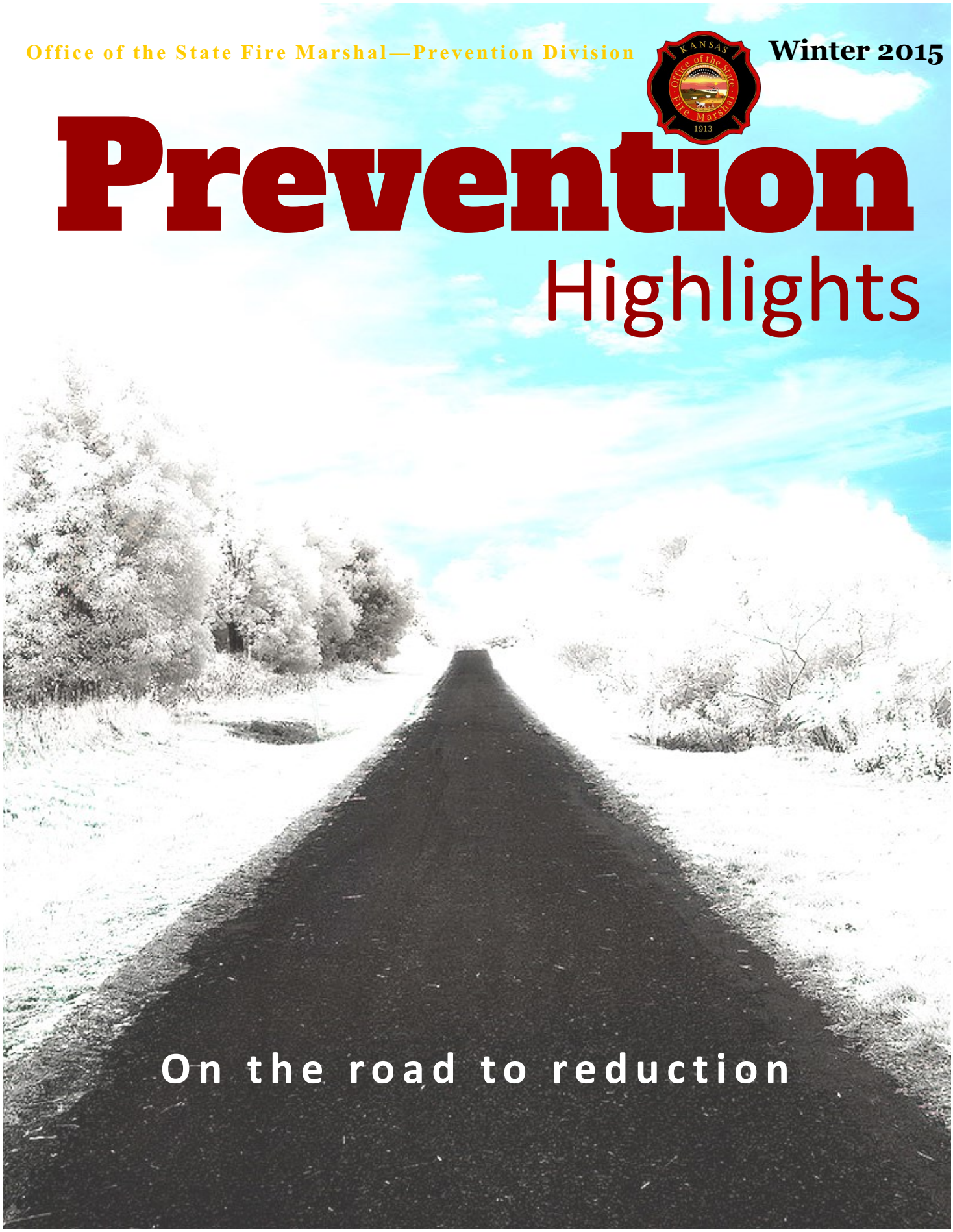
Office of the State Fire Marshal—Prevention Division

Winter 2015

Prevention Highlights



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Our Mission

The Office of the State Fire Marshal (OSFM) is dedicated to protecting lives and property from the hazards of fire or explosion and will promote prevention, educational and investigative activities to mitigate incidents, promote life safety and deter crimes.

The Fire Prevention Division

The goal of the Fire Prevention Division is to reduce the potential impact of fire and explosion hazards where people live, work and congregate (other than one– or two-family dwellings) through code enforcement, inspections, plans review, licensing, and public education.

Prevention Highlights

Prevention Highlights is published quarterly to provide facility managers and others with information necessary to operate fire-safe facilities.

Brenda McNorton ..... Chief of Prevention

Mende Barnett ..... Education Consultant

Kevin Doel ..... Public Information Manager

Contributors: Mike Wikle, Mende Barnett, Susan Summers Gehring, Jason Lady

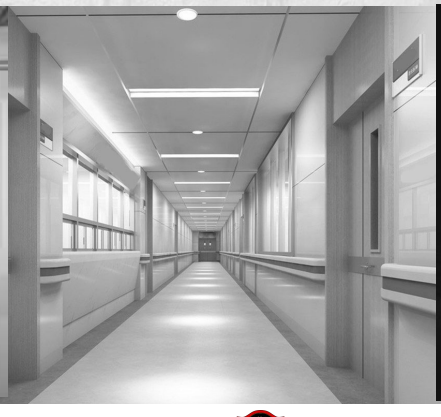
Connect with us!

www.firemarshal.ks.gov

800 SW Jackson
Suite 104

785-296-3401

prevention@ks.gov



Corridor Obstructions

"CMS and surveyors are working to find a fine balance"

After nearly a decade working as a Fire Inspector in Kansas, I assisted in ensuring all healthcare facilities kept corridors "completely" clear. We all recognize the operational needs in healthcare facilities across Kansas. Centers for Medicare and Medicaid and our surveyors are working in partnership with healthcare providers to find a balance to allow a small amount of items to be maintained in corridors.

"So, why the change?" You may be asking?

In order to improve the quality of life for the nursing home residents and allow the daily functioning needs of many Kansas hospitals, it was essential that this take place.

Here is what has changed over the last five years to allow this. In a May 14, 2010 a Survey & Certification letter in which CMS announced changes to policies regarding the use of wall mounted equipment and other items as long as they meet stringent placement requirements throughout the corridor of the facility, where the items don't stick out further than six inches from the wall, located 40 inches above the floor, not be greater than 36 inches long and approximately 48 inches between all other items placed on the wall, the corridor needs to be six feet wide.

Furthermore in recognition of the operational needs in healthcare facilities CMS adopted certain sections of the 2012 National Fire Protection Association (NFPA) 101, Life Safety Code that will allow a limited amount of certain furniture and other projections into the corridors, through the issuance of a S&C letter on March 9, 2012 titled 12-21-LSC that allows healthcare providers to now have items in the corridors.

Projections into the Corridors for Wheeled Type Equipment are permitted in NFPA 101, 2012 edition, contingent upon you are adhering to three basic conditions at all times.

A) Any wheeled equipment you are planning on having, within the corridor shall not reduce your corridor width to less than 60 inches or five feet in comparative.

B) You must incorporate into your written fire & safety and evacuation plan that any/all wheel equipment within the corridor shall be removed from the corridor during drills and other emergencies, and all staff shall be training accordingly as this will be important.

C) You must have a written policy, in which staffs have acknowledged that "wheeled equipment in use is only limited to the following: Equipment in use and carts in use. Medical emergency equipment not in use such as crash cart or isolation carts, and patient lift and transport equipment, and that at "NO" time is any wheeled equipment to block the following fire and smoke door operations, or restrict access to emergency equipment or restrict access to an exit.

If you are unsure about your corridor and have questions please do not hesitate to call our office for additional help.

Mike Wikle, OSFM Enforcement Officer/Inspector

Youth Firesetters in Schools

By Mende Barnett, OSFM Education Consultant

School is not just a place where kids go to learn it is their home away from home. Oftentimes their troubles spill over into the classroom leaving the teacher to deal with more than just lesson planning.

Through the years teachers have additional duties other than educating our kids. They have become counselors, caregivers, and mental health educators to students who need that extra attention.

As an educator, what do you do if a student has experimented with setting fires? It is typical for kids to be interested in fire. It's bright, hot and interesting. There is a lot of mystery that surrounds fire.

Kids who are more than just curious will act on their impulses. They will either intentionally start a fire for the thrill or by accident but this type of behavior need special attention. Children under the age of ten typically start fires more out of curiosity and not because of psychological problems. Younger children also cause more monetary damage than those set by adolescents.

Some kids find it as a means of entertainment. Not intending to harm themselves or someone but find it as a way to have fun.

Studies show that most juvenile firesetters often have low self-esteem, limited social problem solving skills and often are not equipped with the necessary coping skills. They are merely expressing stress, anxiety

and trying to deal with their feelings. Typically they have some underlying issues with anger.

Whatever the reason may be it is a serious problem that takes place not only in Kansas but across the nation. In order to be able to provide assistance to parents, teachers and caregivers these fires need to be reported to the fire departments. Having accurate data helps all those involved provide the appropriate assistance.

If you come across a youth who has either proven that they have fire issues or have talked about it, it is highly encouraged that you contact your local fire department.

There are resources available for kids who have more than just a "natural" attraction to fire.

The State of Kansas currently has two Youth Firesetter Intervention Coalitions. YFIT-Johnson County Youth Firesetter Intervention Team is comprised of local Fire Departments, mental health officials and other agencies assisting with the education and support of these youths. To contact YFIT please call Corey Sands with Shawnee Fire Department at 913-631-2999. The Fire Burn and Safety Alliance of South Central Kansas cover the counties of Sedgwick, Butler, Kingman, Reno, Cowley, Sumner and Harvey. To contact this alliance please contact Judd Gifford at yfiresks.com.

If you live out of either of these areas of coverage you may still contact them for information and resources or visit our website.

"Fires are not just a fire department problem but a community one. It will take the community and fire service working together to lower incidents of fires occurring. If a teacher notices a student that is starting fires, contact your local fire department for assistance. It is the goal of the fire service to offer intervention education to not only the child but also the family. This vital education not only helps save the child and their family from injury but the responding firefighter as well." Corey Sands, Fire Marshal with the Shawnee Fire Department in Shawnee Kansas. Corey has dealt first hand with kids who have been experimenting with fires. When Corey is investigating youth firesetters he likes to make sure that the kids realize what the consequences of their actions can be. He feels strongly that it takes more than just the fire department to help them. It is a collaborative effort between those in the kids life and the community.

> "Fires are not just a fire department problem but a community one"
>
> Corey Sands, Shawnee Fire Department

Parents should talk to their kids about fire. Not all fire is bad. When it is misused or handled incorrectly it can get out control very quickly but not all fire is bad. Teaching our kids that fire is a natural resource and the importance of it can be beneficial to them. They need to know more than the typical stop-drop and roll. Having a healthy and safe atmosphere where kids are exposed to fire can let them still be curious without getting hurt. When having a bar-b-que talk to them about using the grill, camp-outs, and even fireworks are good time to discuss the importance of fire safety but still allowing them to be involved.

Our office also has an extensive lending library with multiple Firesetter DVD's that you are welcome to request. Click here for a link to that video catalog.

Kids as young as four years old can start fires accidently or intentionally. If you know of a child who has experimented with setting fires it is imperative that you contact someone who can assist them and get them the help they need.

HOW SAFE ARE

ELECTRIC Warmers?

Our inspectors often get asked questions regarding electrical devices such as candle warmers, wax warmers (Scentsy), plug-in air fresheners, etc.

Does code allow them? Many people think because they are an electrical device that there must be some sort of regulation against them. The answer is simple. There is no specific code that prohibits the use of these types of items. While code does not allow the use of an open flame, some facilities may have policies and protocols of their own that prohibit such items. If you are a facility that does not allow a wax warmer, it is best to have that policy in writing for staff and residents to have readily available.

Most of these items do not put off enough heat to generate the potential of fire; however, the issue lies in the device being plugged into a power strip that could run the risk of it being overloaded.

If the scent of a candle is what the resident wants, there are other options. Potpourri or Potpourri satchels, scented drawer paper or scented smelly sprinkles. There are many options to allow residents the opportunity of having a nice scent in their rooms without using an electrical-powered device.

One of the biggest issues during the colder months relates to space heaters and where they can and can't be used.

The use of any portable space heater is NOT PERMITTED in resident rooms, including infra-red heaters that are on the market.

Often times the inability to maintain temperature in a health care facility is indicative of an inadequate or malfunctioning heating system. NFPA 101, 2000 ed., Life Safety Code, which the Centers for Medicare & Medicaid Services and Joint Commission on Accreditation of Healthcare Organizations enforce, prohibits the use of space heaters in hospitals, nursing homes, and ambulatory care centers. See section 18.7.8 for new and 19.7.8. for existing, "Portable space-heating devices shall be prohibited in all health care occupancies." For existing facilities, there is, however, a small exception to this rule. Employee areas, where staff or residents do not sleep, can have portable space heaters as long as their heating elements do not exceed 212 degrees F. You must be able to provide documentation that the device does not exceed the limit.

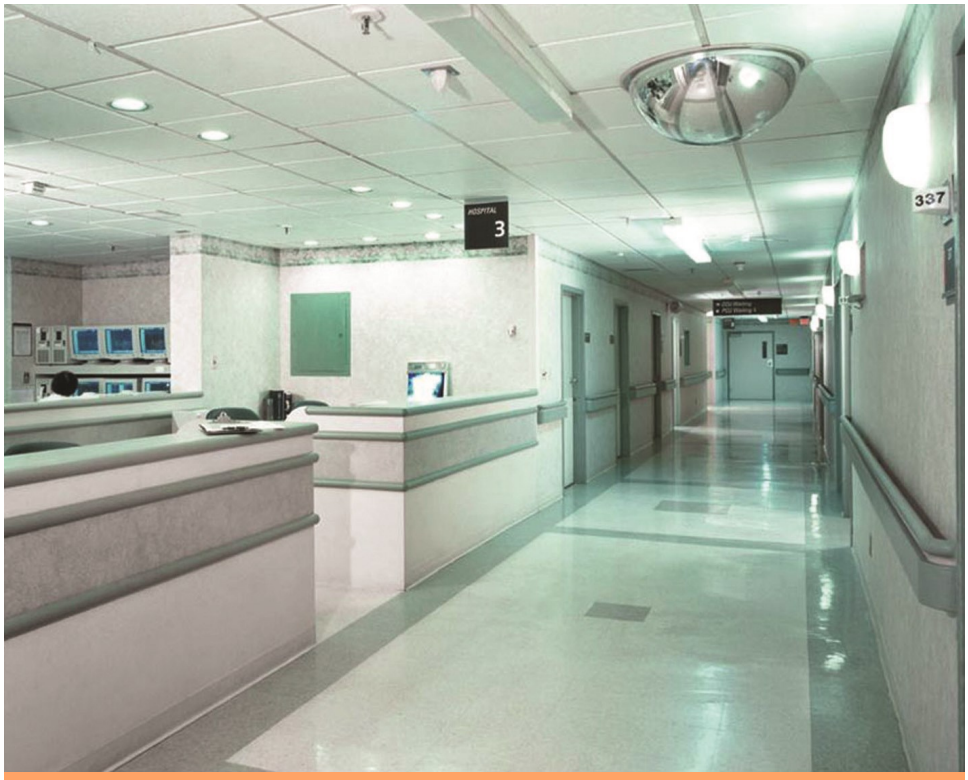
Spot-Type Detectors: Smoke vs. Heat The How and Why

By: Susan Gehring, OSFM Inspector

To understanding the difference between spot-type smoke and heat detectors we must start by examining the intent of the detectors. Smoke detectors are intended to protect people, while heat detectors are consider property protection. The distinction in the ability to protect people versus property lies in the technology's ability to detect a fire. Smoke detectors are capable of detecting a smoldering fire through particle obscuration much sooner than a heat detector's thermocouples will sense the temperature increase. So, because carbon monoxide is a by-product of fire that affects people not property; we can only classify the smoke detector as a life safety device.

If smoke detectors are capable of protecting both people and property, why use spot-type heat detectors? The early detection capability of particle obscuration technology is accompanied by a more stringent set of application parameters when compared to that of the heat detector's thermocouple. When selecting spot-type detection there are three factors we consider when determining an area's suitability for smoke detectors: relative humidity, temperature, and air velocity. While installation constraints vary by manufacturer and even model, the National Fire Alarm Code (NFPA 72, 2007 Ed.) outlines prescriptive constraints. Environments with a relative humidity greater than 93% or an expected ambient temperature below 32°F or in excess of 100°F are typically precluded from the use of spot-type smoke detection. An air velocity greater than 300 feet per minute will also, typically, exclude the area from spot-type smoke detection. Although heat detectors are not suitable for every condition in which smoke detectors are not recommended, they tend to have a broader set of installation parameters.

Now that we understand how and why we select spot-type detectors let us examine the where. Where would we expect to see heat detection in place of smoke detection? Attics are one of the most common environments in which ambient conditions dictate the installation of spot-type heat detectors. Though we have not entirely examined the puzzle that is detection, hopefully, you have a better understanding of the piece that is spot-type detection.



Why is Compartmentation Important?

Minutes and even seconds are critical when trying to escape a burning building. Being able to get to a fire compartment can mean the difference between life or death.

Fire compartmentation is a key part of the basic fundamentals of a “fire safe” building. In order to understand why compartmentation is important, we must first know what it is.

Fire compartmentation is the dividing of areas of a building into fire zones or compartments so that fire, smoke and gases can be contained, allowing people to exit the building safely. This is achieved by using fire-rated materials that can withstand high temperatures. These areas allow an extra layer of protection so occupants inside the building have a better chance for survival.

In healthcare facilities where residents and patients may not be able to evacuate themselves, it is vital for all staff to know the structure of the building and where these fire compartments lie. Staff should plan and practice evacuation drills to these specific areas.

It is essential when facilities undergo construction and change that staff are aware of the location of these smoke barriers. Marking the walls of fire barriers and smoke barriers is often beneficial while construction is taking place as not everyone will reference the evacuation drawings.

When construction is taking place, especially in healthcare facilities, there may be the need to add or reduce these areas.

Fire compartmentation is only one method being used to save lives in buildings — it must be used in conjunction with other life safety measures such as fire alarm systems, sprinkler systems, heat and smoke detection and evacuation procedures.

Different healthcare occupancies will require different code compliance depending upon the nature of the facility. NFPA 101 Life Safety Code 2000 Edition explains smoke compartments in ambulatory healthcare occupancy must be divided into not less than two smoke compartments. Facilities less than 5,000 square feet that are protected by smoke detection systems are exempt. Facilities less than 10,000 square feet and protected by sprinklers are exempt. Not less than 15 square feel area must be provided for every occupant in the ambulatory healthcare facility on either side of the smoke compartment. Smoke compartments are limited to 22,500 square feet in size and the travel distance to reach a smoke compartment door must not exceed 200 feet. Essentially, the smoke compartments are designed to meet your occupancy load as well as the types of occupants.

Mende Barnett, OSFM Education Consultant

Holiday decorating

Holiday time means enjoying the festivities and gearing up for tinsel and tissue paper.

While most of us enjoy decorating and getting into the holiday spirit we have to remember what code *does* and *doesn't* allow.

Schools often are having Winter formals and holiday dances or elementary schools are preparing for classroom parties.

Keep in mind when adding decorations to your classroom or hallways that you keep safety at the forefront. Code does not allow any exit doors obstructed or blocked. This includes disguising the doors with decorations. Remember to keep sprinkler heads free from obstructions such as hanging items from them or the piping.

Artwork should be limited on the walls of the corridors to no more than twenty percent of the wall area in Group E Occupancies.

In healthcare facilities we often find that doors are disguised for memory care purposes. This too is a code violation. Deterring patients from going out exit doors is certainly a concern however being able to quickly exit in the event of a fire is priority in the Life Safety Code.

While code does not allow live trees in healthcare facilities, artificial trees can be used if they are fire retardant.

When we are trying to keep occupants safe inside our buildings, we have to remember that a little decoration can go a long way.

Adding “fuel” such as combustible material to a fire can make it burn longer and hotter. Keeping decorations to a minimum helps to reduce this risk.

Be aware that even applying a flame retardant product to decorations can still pose an issue if the product is not used correctly or may not be the proper product to be used. Be sure to keep the documentation available for the inspector to view.

Product Warning!

Fireblock Product Denied

By Jason Lady, OSFM Fire Protection Specialist

Our office recently had a request to review a firestopping product by the name of *Touch 'N Foam Fire Break.*

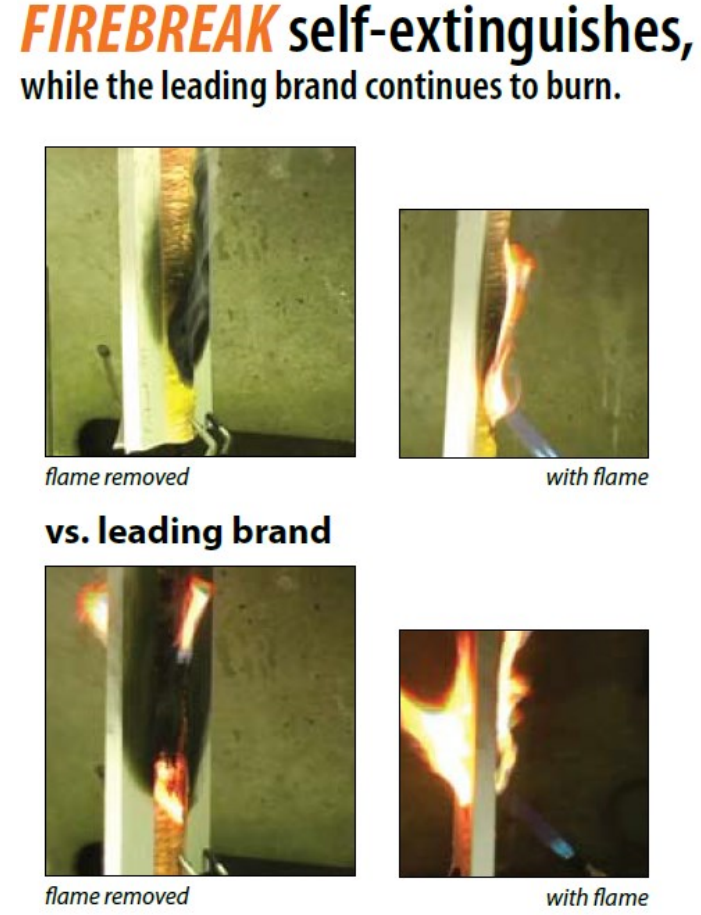
This is a reminder that not all products do what they say they do. This product was denied by our office because of multiple reasons.

- Product listed as a "fireblock" and not a "firestop" by manufacturer.
- Testing does not provide a safe temperature of the product or burn through time.
- Testing does not provide a fire rating, only applied to "firestops", "fireblocking" does not have a rating w/testing.
- Testing was performed to a modified version of ASTM E814, which does not include all required tests of the ASTM standard and adds backing materials in which to pass the tests.
- Manufactures product data sheet does not even state product passed ASTM E814 tests, but says it "performed excellent".

Please remember that "Fireblock" is used to reduce the flow of air through concealed spaces, thus reducing fire spread time, but does not provide an actual rating or time. "Fireblock" can be used for smoke mitigation, but not as a rated "Firestop".

Approved "Firestop" has an actual rating in which it provides a breakthrough (burn time) for a fire rating. These are tested to specific construction detail that reflects that installed assembly. Manufactures provide cut sheets on ASTM E814/E84 approved products and describe the assemblies they are approved for.

Note: Not all "Firestop" products are approved for all assembles.



What exactly is Fire Watch and do you know when to implement it?

Fire Watch is a short-term emergency measure intended to provide an acceptable level of life safety in a building that has an impaired fire safety system, such as a fire alarm system or sprinkler system within the building is out of service or not working properly.

Fire Watch is a compensatory measure only. It is intended to allow continued occupancy of a building or facility that may not be safe for building occupants during the time period required for implementing appropriate changes or repairs.

During a Fire Watch, you are able to provide accurate documentation to your inspector during an inspection. If a facility owner is not able to provide documentation that the life safety system is being maintained and tested the Authority Having Jurisdiction (AHJ) has the right to put that facility in Fire Watch.

The purpose of Fire Watch is to check ALL areas of the building on a regular basis for fire/life safety emergencies and then to alert the facility occupants to take appropriate action as early as possible.

When is a Fire Watch Required?

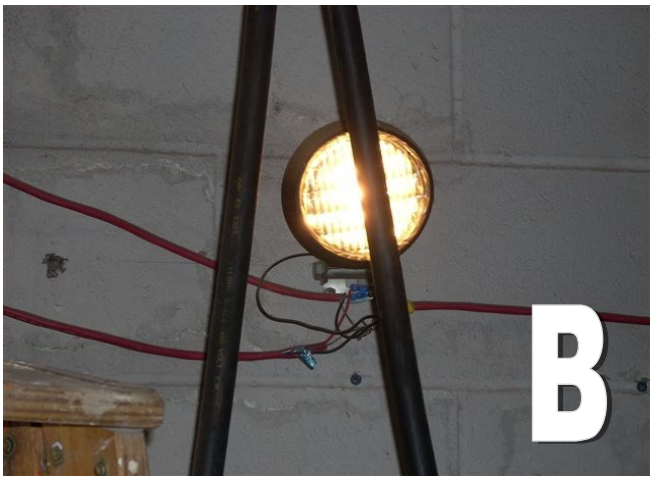
An informal Fire Watch should be implemented IMMEDIATELY when certain conditions are discovered either by the facility or by other authorities, including: outage or significant impairment of the fire alarm signaling system, outage or significant impairment of the automatic fire suppression system, outage or significant impairment of the facility water or impairment of the facility's existing system NOT significant enough to warrant evacuation and shutdown the facility. An informal Fire Watch procedure is only for conditions not expected to exist longer than four hours. If conditions remain impaired for more than four hours in a 24-hour period then a *formal* Fire Watch shall be implemented.

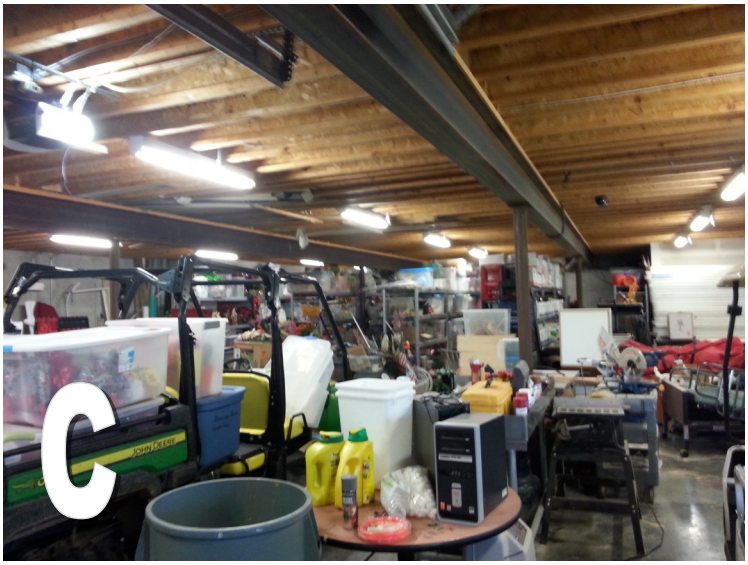
Informal and Formal Fire Watch

A formal Fire Watch procedure shall include: notifying the AHJ and the OSFM, and notifying all staff and occupants. The facility will stay in Fire Watch as long as the building is occupied. The person or persons responsible for performing the Fire Watch patrol will report all fires to the 911 dispatch center and maintain a means of communication with the 911 dispatch center. They should also record all actions on the Fire Watch log and submit it to the OSFM. The person or persons assigned to maintaining the Fire Watch shall not have any other duties. Their responsibility will solely be to continuously monitor all areas of the facility, including janitor closets, attics, utility spaces and other normally unoccupied areas.

Different occupancies have different levels of risk determined by the relative vulnerability of the occupants. Each facility shall establish and maintain a written Fire Watch policy.

Can You Spot the Violation?





Email your answer, including a brief reason why it's a violation, to mende.barnett@ksfm.ks.gov. You could win an OSFM 100th Anniversary Challenge Coin!

Answers will be given in the next edition of Prevention Highlights

Thank you for your all your hard work and dedication to keeping Kansas fire safe. We know that it is not always easy to comply with code. As we continue to work together we will be able to provide Kansas citizens with the safest buildings we possibly can. –OSFM